

**D.T.E. 03-121**  
**Attachment NEDGC-4-3 (b)**

Commonwealth Electric Company  
Back-Up and Maintenance Service  
Mass. D.T.E. Data Requests  
Docket No. EC98-11  
Respondent: H.C. LaMontagne

Information Request DTE-1-2

Please refer to Standard of Review for Electric Contracts, D.T.E. 96-39A (October 27, 1998 Department letter to Commonwealth Electric Company) and 220 C.M.R. §§ 12.00 et seq. Please explain in detail how this transaction complies (1) the Department's criteria for special contracts; (2) the Standards of Conduct for Distribution Companies and their Competitive Affiliates; and (3) any other provisions of the law.

Response

Pursuant to the Department's "Standard of Review for Electric Contracts," a distribution company seeking approval of a special contract under G.L. c. 164, § 94 must satisfy five criteria. A company must demonstrate that: (1) the discounted rate exceeds the company's marginal costs of distribution; (2) a discount to one customer is not recoverable from remaining ratepayers; (3) the electricity contract is consistent with the law and the Department's policies and precedent (for criteria (1), (2) and (3), *see* D.P.U./D.T.E. 96-39-A at 2 (October 27, 1998)); (4) the applicable formulas and rates must be explicit, or at a minimum, readily derived from other information in the contract; and (5) the purchaser of power must be subject to a non-bypassable transition charge (for criteria (4) and (5), *see* D.P.U. 96-39, at 2 (August 30, 1996)).<sup>1</sup> Also, the Department requires a substantive showing of the need for confidentiality where a request is made by a distribution company for protective treatment of any of the terms of a special contract. D.P.U. 96-39, at 2; D.P.U./D.T.E. 96-39-A at 3.

The Agreement between the Company and Southern Energy Canal, L.L.C. ("Southern Canal") for the delivery of Back-Up and Maintenance Service to Canal Unit 1 and Canal Unit 2 complies with these criteria. First, the rates and charges applicable under this Agreement are not discounted. The rates are based on the cost to serve this customer, and exceed the associated marginal cost (*see* Attachment DTE-1-2). The transaction is structured as a special contract because of the specific service and cost characteristics (*see* response to DTE-1-1). Second, the cost to serve this customer is fully recovered from Southern Canal, no discount or other costs are allocated to other customers. Third, this Agreement is consistent with Department rate design

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<sup>1</sup> In its August 30, 1996 Letter Order, the Department also required that any special contract for electric service be limited in duration to two years. D.P.U. 96-39, at 2. However, in its October 27, 1998 Letter Order, the Department removed that requirement, determining that the changes brought about by the Electric Restructuring Act of 1997 eliminated the need for such limitation. D.P.U./D.T.E. 96-39-A at 2. Also, please note that Section 2.1 of the Agreement between the Company and Southern Canal provides for termination upon 30 days' written notice.

Information Request DTE-1-2

Page 2

policies, including marginal cost pricing. Fourth, the rates and charges for this Back-Up and Maintenance Service are explicitly stated in Article V of the Agreement either at specified rates or by reference to the Company's filed tariffs. Fifth, Section 5.3E. of the Agreement expressly provides for the application of a Transition Charge, which is non-bypassable in design.

The Company does not seek confidential treatment of any terms of this Agreement, so the Department's requirements in this regard do not apply.

The Agreement between the Company and Southern Canal does not involve any standards of conduct issues. The Department's standards of conduct regulations, 220 C.M.R. §§ 12.00 *et seq.*, govern the relationship between a distribution company and its affiliates transacting business in Massachusetts. *see* 220 C.M.R. § 12.01(1). While the Company is a distribution company under the Department's jurisdiction, Southern Canal is not an affiliate of the Company. Southern Canal is fully independent of the Company and there are no common control or ownership relationships between the two.

Finally, as stated above, this transaction complies with the requirements of G.L. c. 164, § 94A and the Department's applicable rate design policies.

**SCHEDULE 2**

Page 1 of 3

**COMMONWEALTH ELECTRIC COMPANY  
DEVELOPMENT OF TRANSMISSION MARGINAL COST  
FORECAST PERIOD 1995 THROUGH 2005**

CBA(1)	Project Name	Lead Time (years)	In Service Year	Total Cost 1996\$	Increm. Cap. Cost 1996\$		Replace. Cap. Cost 1996\$
					Cap.	Cost	
570	Carver - Brook #116 Line Rebuild	1	1996	4,152,000	3,267,185	884,815	
000,806,807	Oceans Station Double End	4	1999	2,850,000	2,850,000	0	
000,805	New Bedford 115 KV Supply System	3	1998	5,188,000	5,188,000	0	
000,810	Har. Tap - Harwich #119 Line Upgrade (3)	2	2002	453,000	453,000	0	
000,803,809	Oak St. Substation Addition	3	2005	2,641,000	2,641,000	0	
000,808,809	Commonwealth 345 KV Supply System (4)	5	2007	1,836,000	1,836,000	0	
<b>Total</b>		<b>2,869,451</b>		<b>17,120,000</b>	<b>16,235,185</b>	<b>884,815</b>	
<b>Incremental Load (1994 - 2005) - kW (2)</b>				<b>72,000</b>			
<b>Marginal Investment \$/kW</b>				<b>\$225.49</b>			

Note: (1) Information from 1996 Construction Budget Priority Assessment Page 4.

(2) Information from 1996 Construction Budget Priority Assessment B Page 42 (Base Case/wDSM) .

(3) Cost figure reflects only cost of incremental upgrade. No replacement cost calculation is required.

(4) Cost of only the first 3 years of project included in this analysis.

SCHEDE E 5

**COMMONWEALTH ELECTRIC COMPANY  
TRANSMISSION OPERATIONS AND MAINTENANCE EXPENSES**

YEAR	O&M EXPENSES(a)	PEAK LOAD(MW)	\$/KW [3]=[1]/ ([2]*1000)	COST INDEX(b)	TRENDED \$/KW [5]=[3]*[4]	TOTAL EXPENSE RATE YEAR \$s [6]=[1][4]
1 1986	\$2,039,881	564	\$3.62	1.3261	\$4.80	\$2,704,754
2						
3 1987	\$1,810,131	665	\$2.72	1.2850	\$3.50	\$2,325,944
4						
5 1988	\$1,862,374	679	\$2.74	1.2367	\$3.39	\$2,303,248
6						
7 1989	\$1,965,688	697	\$2.82	1.1843	\$3.34	\$2,327,953
8						
9 1990	\$1,776,942	621	\$2.86	1.1341	\$3.25	\$2,015,267
10						
11 1991	\$2,103,668	619	\$3.40	1.0927	\$3.71	\$2,298,577
12						
13 1992	\$1,721,911	612	\$2.81	1.0628	\$2.99	\$1,830,095
14						
15 1993	\$1,004,667	636	\$1.58	1.0405	\$1.64	\$1,045,308
16						
17 1994	\$1,616,612	665	\$2.43	1.0190	\$2.48	\$1,647,328
18						
19 1995	\$778,161	697	\$1.12	1.0000	\$1.12	\$778,161
20						

**NOTES :**

- (a) SOURCE: FERC FORM 1, EXCLUDING ACCOUNT 565
- (b) IMPLICIT PRICE DEFULATOR FOR GROSS DOMESTIC PRODUCT; HISTORICAL DATA (U. S. DEPARTMENT OF COMMERCE, BUREAU OF ECONOMIC ANALYSIS) AND FORECAST DATA (DATA RESOURCES, INC.)
- (c) AVERAGE OF THE TEN YEARS OF TRENDED EXPENSES

SCHEDULE 10

**COMMONWEALTH ELECTRIC COMPANY  
COMPUTATION OF TOTAL ANNUAL UNIT MARGINAL COSTS  
CAPACITY RELATED GENERATION, TRANSMISSION, DISTRIBUTION**

**SCHEDULE 10****Page 2 of 2**

**COMMONWEALTH ELECTRIC COMPANY  
COMPUTATION OF TOTAL ANNUAL UNIT MARGINAL COSTS  
CAPACITY RELATED GENERATION, TRANSMISSION, DISTRIBUTION**

**NOTES:**

- {e}BASED ON AN ANALYSIS OF THE HISTORICAL RELATIONSHIP BETWEEN GENERAL PLANT AND GROSS PLANT IN SERVICE WITHOUT GENERAL PLANT FOR EACH FUNCTION
- {f}SOURCE: SEE APPENDIX A
- {g}SOURCE: SEE SCHEDULE 8, PAGE 2 OF 2 A&G FACTOR DOES NOT APPLY TO ACT. 565 EXPENSES
- {h}TOTAL GENERATION CAPACITY-RELATED COSTS ADJUSTED FOR 15.79% RESERVE MARGIN
- {i}BASED ON FUNCTIONAL M&S LOADING FACTORS, DEVELOPED IN SCHEDULE 9, TIMES THE MARGINAL INVESTMENT BY FUNCTION ON LINE 2
- {j}BASED ON THE RATIO OF PREPAYMENTS TO GROSS PLANT IN SERVICE FOR EACH FUNCTION TIMES THE MARGINAL INVESTMENT BY FUNCTION ON LINE 2
- {k}MARGINAL COST OF CAPITAL, ADJUSTED FOR INCOME TAX EFFECT:  
$$(0.5011 * 0.0903) * (0.4989 * 0.1395) / (1 - 0.39225) = 15.80\%$$

## SCHEDULE 14

**COMMONWEALTH ELECTRIC COMPANY**  
**LOSS ADJUSTED TIME DIFFERENTIATED MARGINAL CAPACITY COST**  
**BY VOLTAGE LEVEL**

TIME PERIOD	TIME CAPACITY (a) COSTS \$/KWH	LOSS FACTORS (b)			LOSS ADJUSTED COST -\$/KWH (c)		
		LARGE SECONDARY		SMALL SECONDARY	RESIDENTIAL	LARGE SECONDARY	
		PRIMARY	SECONDARY	PRIMARY	SECONDARY	RESIDENTIAL	
<b>PEAK</b>							
GENERATION	\$79.24	1.043390	1.061990	1.100310	1.100310	\$82.68	\$84.15
PEAK PERIOD	\$34.26	1.043390	1.061990	1.100310	1.100310	\$35.75	\$36.39
DISTRIBUTION							
PRIMARY	\$44.75	1.043390	1.061990	1.100310	1.100310	\$46.69	\$47.52
SECONDARY	\$39.97		1.061990	1.100310	1.100310		\$42.45
TOTAL						\$165.12	\$210.51
<b>SHOULDER</b>							
GENERATION	\$0.00						
TRANSMISSION	\$0.00						
DISTRIBUTION							
HIGH TENSION	\$0.00						
PRIMARY	\$0.00						
SECONDARY	\$0.00						
TOTAL							
<b>OFF PEAK</b>							
GENERATION	\$0.00						
TRANSMISSION	\$0.00						
DISTRIBUTION							
HIGH TENSION	\$0.00						
PRIMARY	\$0.00						
SECONDARY	\$0.00						
TOTAL	\$0.00						

NOTES:

- (a) SOURCE: SCHEDULE 10
- (b) SOURCE: SCHEDULE 13
- (c) TIME DIFFERENTIATED CAPACITY COSTS • LOSS FACTORS

SCHEDULE 15

**COMMONWEALTH ELECTRIC COMPANY  
SUMMARY OF MARGINAL COSTS**

CAPACITY COST (a) - \$/KW		PRIMARY	LARGE SECONDARY	SMALL SECONDARY	RESIDENTIAL
GENERATION PEAK PERIOD		\$82.68	\$84.15	\$87.19	\$87.19
TRANSMISSION DISTRIBUTION PRIMARY		\$35.75	\$36.39	\$37.70	\$37.70
SECONDARY		\$46.89	\$47.52	\$49.23	\$49.23
TOTAL		\$165.12	\$210.51	\$218.10	\$218.10

ENERGY COST (b)				SMALL GENERAL ANNUAL	
	MILLS/KWH				
PEAK	35.81	35.93	37.80	0.00	
SHOULDER	29.36	29.46	30.91	0.00	
OFF-PEAK	23.35	23.40	24.30	0.00	
ANNUAL CUSTOMER COST (c)		RESIDENTIAL SEASONAL		RESIDENTIAL CNTR-WHG	
\$175.98		\$158.81		\$106.78	\$187.56
SM.GEN.SEAS. & MED.GEN. <100kW		MED. GEN. >100 kW Ig. GEN&CONT.		COMM. SPACE HTG.	ELEC. SCHOOL
\$165.27		\$6,569.02		\$130.56	\$8,810.04

## NOTES

[a] SOURCE: SCHEDULE 14  
[b] SOURCE: SCHEDULE 12  
[c] SOURCE: SCHEDULE 11